

AMENDMENTS

In the claims:

Please amend claim 47, a clean version is provided below:

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47. (twice amended) A method for treating tissue within a patient's spine comprising:
positioning an electrode in close proximity but external to, or in contact with, an outer surface of an annulus of an intervertebral disc; and
heating a portion of the annulus to a temperature in the range of from about 55° C to 70° C.

REMARKS

Applicant has amended claim 47 and believe that no new matter is introduced by way of this amendment. Currently, claims 32-59 remain pending in the subject application.

35 U.S.C. §112

The Office Action rejected claims 32-47 under 35 U.S.C. §112, 1st paragraph stating that the specification does not provide enablement for closing an opening or merely heating the disc while the electrode is in contact with, or in close proximity to, the outer surface of the disc.

Applicant disagrees. As applicant asserted in the previous response, page 43, lines 14-19 provides:

As shown in Fig. 35 and 36, once the pulposis 290 has been sufficient[ly] contracted to retract from impingement on the nerve 720, the probe 700 is removed from the target site.

In the representative embodiment, the high frequency voltage is applied between active and return electrode(s)

704 706 as the probe is withdrawn through the annulus 710. This voltage is sufficient to cause contraction of the collagen fibers within the annulus 710, which allows the annulus 710 to contract around the hole formed by probe 700, thereby improving the healing of this hole. Thus, the probe 700 seals its own passage as it is withdrawn from the disc. (Emphasis added.)

Applicant further respectfully refer to page 5, starting on line 17, which provides:

In one aspect of the invention, a method is provided for treating herniated discs within a patient's spine. Specifically, the method of the present invention comprises introducing an electrosurgical probe within the spine (either in open or endoscopic procedures) so that one or more electrode terminal(s) are brought into at least partial contact or close proximity with the target herniated disc. . . . In another embodiment, the electrode terminal is advanced into the annulus and sufficient high frequency voltage is applied to contract or shrink the collagen fibers within the nucleus pulposus. This causes the pulposis to shrink and withdraw from its impingement on the spinal nerve.

From the above, Applicant believes that the specification (starting at page 5, line 17) clearly provides for varying embodiments of the invention. These embodiments include, at the least, one embodiment where the electrodes are "are brought into at least partial contact or close proximity with the target herniated disc" and another embodiment where the electrode "is advanced into the annulus" or disc. Accordingly, page 43, lines 14-19, describes applying high frequency to the electrode where the voltage is sufficient to at least partially close the opening in the annulus. This section makes reference of one embodiment of the invention, namely where the electrode is advanced, and then, removed from the annulus. However, as stated above, the invention includes embodiments where the electrodes are brought into at least partial contact or close proximity to the disc. Accordingly, the specification clearly enables one skilled in the art to use the invention commensurate in scope with the claims.

In view of the above, applicant respectfully requests withdrawal of this rejection.

35 U.S.C. §102 -I

The Office Action rejected claims 47, 50, and 51 as being anticipated by Sharkey et al. (6,007,570). Applicant disagrees with this rejection and disagrees with the analogy made to claim 41. Applicant further notes that Office Action's reading of Sharkey to anticipate claim 47 is an unreasonable reading of the Sharkey reference. Applicant believes Sharkey fails to teach the positioning an electrode in close proximity of an outer surface of an annulus since Sharkey clearly teaches guiding the intradiscal section of the catheter to selected sections on or adjacent to the *inner wall* of the annulus fibrosus.

In order to expedite prosecution of the subject application, applicant has amended claim 47 to obviate this rejection. However, this amendment is not a concession of the Office Action's rejection and applicant reserves the right to address this issue in a continuing application.

35 U.S.C. §102 -II

The Office Action rejected claims 32-39 and 41-51 as being anticipated by either Lax et al. (5,458,596) or Baker (5,514,130). Applicant disagrees.

Both Lax and Baker merely describe application of a device to a herniated disc. Applicant is unable to find any discussion in either reference that the herniation discussed therein contains any fissure, rupture or hole. In fact, Lax and Baker clearly show, in the Figures referred to by the Office Action, that the herniation is contained. Solely for the purpose of noting that herniations of vertebral discs do not always involve holes in the annulus of the disc, Applicant refer to Sharkey, col. 1, line 24-33. In this section, Sharkey discusses contained disc herniations. As a result, since Lax and Baker do not clearly mention the type of disc herniation, and since the figures clearly depict *contained* herniations (i.e., a herniation having a bulge but no opening or fissure), these references simply do not anticipate applicant's claims. Applicant respectfully requests support for the Office Action's assertion that "[s]uch a herniation includes an opening in the annulus."

In view of the above, applicant believes that the references fail to teach all of the requirements of applicant's claims and requests withdrawal of this rejection.

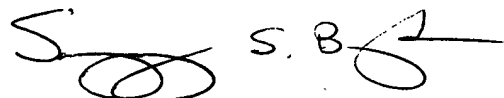
Provisional Double Patenting

The Office Action rejected claims 52-59 under judicial double patenting. Applicant disagrees. In any event, because this rejection is a provisional rejection, will address this rejection either upon allowance of the subject claims, or allowance of the claims of the copending application. In either event, a telephone call to the undersigned attorney to address this rejection, when appropriate, will be appreciated.

SUMMARY

Applicant believes all outstanding issue raised in the previous Office Action are addressed herein and that the claims are in condition for allowance. If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at (408) 736-0224.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'S. Bagade', with a stylized flourish at the end.

Sanjay S. Bagade
Reg. No. 42,280

ArthroCare Corporation
680 Vaqueros Ave.
Sunnyvale, CA 94085-3523
(408) 736-0224

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the claims:

Claim 47 is amended, a marked up version follows:

47. (twice amended) A method for treating tissue within a patient's spine comprising:
- positioning an electrode in close proximity but external to, or in contact with, an outer surface of an annulus of an intervertebral disc; and
 - heating a portion of the annulus to a temperature in the range of from about 55° C to 70° C.